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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/800,720

03/16/2004

Hirozumi Ogawa

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1031

7590

01/13/2006

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EXAMINER

HOFFMANN, JOHN M

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,720

Applicant(s)

OGAWA ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 October 2005 has been entered.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

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F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6767503 in view of Kingery "Introduction to Ceramics, page 10.

Present claim 1 is substantially the same as claim 1 of the patent. Present claim 1 also requires the use of a metal mold. As indicated in the second paragraph of Kingery, the use of a metal mold is the simplest method of compacting ceramics. It would have been obvious to use a metal mold, because of its simplicity, in the patented invention. The claim also does not require the specific ceramic of the patented claim. It would have been obvious to use the process on any other ceramic depending upon what ceramic final product is desired.

Claim 2 corresponds to patented claim 5,

Claims 3-10 correspond to patented claim 7. Whereas the present claims do not require all the same limitations, they would encompass the same invention – and thus – if a patent were to issue – would inappropriately extend applicant's monopoly.

Claim 11 corresponds to patented claim 2.

Claim 12 corresponds to patented claim 3.

Claim 13 corresponds to patented claim 4.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirao 5902542 in view of Kingery "Introduction to Ceramics" page 10, or alternatively both Hirao and Kingery in view of Kawai 6199404 and Adachi 6042667.

Hirao discloses the invention as indicated in the prior Office action, but not the use of a metal mold. However, as per col. 4, lines 55-58 (and col. 6, lines 34-36) Hirao teaches to press the stack of ceramic sheets – just like Applicant discloses doing. But Hirao does not disclose the mechanism used to press. The first sentence of the second paragraph on page 10 of Kingery, it is discloses that pressing with a metal mold is the simplest method of compacting. It would have been obvious to use a metal mold to do the Hirao pressing to obtain Hirao's "prescribed thickness" because use of a metal mold is known to be the simplest method for compacting ceramics.

Whereas the Office may have previously indicated that Hirao does not have the length of the pressing axis decreasing. This is no longer the Office's position. As per col. 4, lines 55-58, the stack is pressed to get a prescribed thickness. Since pressing cannot increase the thickness, it must be decreasing the thickness/length.

As to the area increasing. 1) It is deemed that it would have been inherent. Since Hirao's ceramic was pressed to get a particular thickness, the extra material would have to move/flow somewhere. The area would have to expand. Examiner gives Official Notice that "Conservation of Mass" is a well known law of science that says mass can neither be created or destroyed. (2) Alternatively, Kingery indicates that the

pressure is a result-effective variable. It would have been obvious to perform routine experimentation, to determine the optimal pressure during the pressing step. Kingery indicates that strength depends on the compacting pressure. And Hirao at col. 1, line 22, indicates high mechanical strength is important. And (3) as indicated in the prior Office action, Kawai and Adachi demonstrate that the claimed deformation of the ceramic would have been obvious.

For the dependent claims 2-13, see how the claims were previously met in the prior Office action.

Response to Arguments

Applicant's arguments filed 27 September 2005 have been fully considered but they are not persuasive.

It is argued that there is no teaching that the orientation degree can be changed. The relevance of this is not understood – the claims do not require a step of changing a degree. Hirao clearly shows that grains are oriented.

It is also argued that Hirao does not teach the flat grains with an aspect ratio of 4-10. Col. 6, lines 9-10 disclose an aspect ration of 10:1. It is clear from figure 4 of Hirao, that the crystals are flat, i.e. prostrate; lying at full length; being characterized by a horizontal line or tracing without peaks or depression. It appear applicant maybe interpreting "flat" to be plate-like. Examiner could find nothing in the present specification or prior art that would suggest that the claims exclude rods that are lying flat, such as what Hirao has.

The PTO gives a disputed claim term its broadest reasonable interpretation during patent prosecution. Hyatt, 211 F.3d at 1372. The "broadest reasonable

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interpretation" rule recognizes that "before a patent is granted the claims are readily amended as part of the examination process." Burlington Indus. v. Quigg, 822 F.2d 1581, 1583 (Fed. Cir. 1987). Thus, a patent applicant has the opportunity and responsibility to remove any ambiguity in claim term meaning by amending the application. In re Prater, 415 F.2d 1393, 1404-05 (CCPA 1969). Additionally, the broadest reasonable interpretation rule "serves the public interest by reducing the possibility that claims, finally allowed, will be given broader scope than is justified." In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364 (Fed. Cir. 2004) (quoting In re Yamamoto, 740 F.2d 1569, 1571-72 (Fed. Cir. 1984)).

Thus, even if one appropriate definition for "flat" would exclude rods which lie flat. The claims would not be limited to such a narrow definition, since broader definitions exists and are reasonable.

As to the assertion of unexpected results: The standard for overcoming the prima facie showing of obviousness is whether the results are new and unexpected. Thus since there is no indication that the results are new, applicant has not overcome the prima facie showing. Furthermore, there is no showing that the evidence of record offered for comparison demonstrates results that are truly unexpected and commensurate in scope with the claims. Applicants have not met their burden of explaining how the results reported in the specification can be extrapolated from the limited instances presented so as to be guaranteed as attainable through practicing the invention as broadly claimed. Moreover, Applicants have not met their burden of establishing that the reported results would have been truly unexpected to a person of ordinary skill in the art. In this regard, it is noted that Applicants have not furnished any detailed data regarding the actual experiments run with ceramics, pressures, temperatures, etc.

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It is well established that the evidence relied on to establish unobviousness must be commensurate in scope with the claimed subject matter. See *In re Kerkhoven*, 626 F.2d. 846, 851, 205 USPQ 1069, 1072-1073 (CCPA 1980) and *IN re Clemens*, 622 F.2d 1029, 1035, 206 USPQ 289, 296 (CCPA 1980).

Conclusion

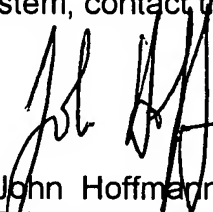
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wiley, Preisler, and Kato are cited as showing that is known that metal is a advantageous material for molds.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Hoffmann
Primary Examiner
Art Unit 1731

1-09-06

jmh